

0  
one and one-half inches = one foot  
1  
0  
one inch = one foot  
2  
0  
one inch = one foot  
2  
0  
three-quarters inch = one foot  
6  
0  
one-half inch = one foot  
4  
0  
one-half inch = one foot  
4  
0  
three-eighths inch = one foot  
8  
0  
one-quarter inch = one foot  
16  
0  
one-eighth inch = one foot  
32

PHASING PLAN

THE GOAL OF THE PHASING PLAN IS TO EFFICIENTLY EXECUTE THE CONSTRUCTION OF THIS PROJECT WHILE MAINTAINING A HIGHLY RELIABLE POWER SYSTEM THAT ALLOWS THE MEDICAL CENTER TO OPERATE NORMALLY, MINIMIZING OUTAGES AND DISRUPTIONS TO MEDICAL CENTER OPERATIONS.

THE LIST BELOW IS BROKEN INTO TASKS, SOME OF WHICH MAY BE ABLE TO BE PERFORMED CONCURRENTLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A DETAILED PROJECT SCHEDULE WHICH, UPON THE APPROVAL OF THE MEDICAL CENTER, IMPLEMENTS THIS PHASING PLAN.

- TASK 1: VAMC TO CONTRACT WITH DUKE ENERGY FOR UPGRADE AND CONVERSION OF EXISTING SUBSTATION TO 6MW, 12,470V.

TASK 2: PROCURE 15,000V PAD-MOUNTED SWITCHGEAR, UNIT TRANSFORMER, SECTIONALIZING SWITCHES, TRANSFORMERS AND ALL OTHER LONG LEAD TIME EQUIPMENT.
- TASK 3: CONSTRUCT UNDERGROUND DUCTBANK. THIS WORK INCLUDES ELECTRICAL MANHOLES, CONCRETE-ENCASED DUCTBANK AND BORINGS UNDER ENCLOSED PEDESTRIAN WALKWAYS.

TASK 4: SET NEW 15,000V SWITCHGEAR AND NEW SECTIONALIZING SWITCHES.
- TASK 5: PULL, TEST AND TERMINATE NEW 15,000V FEEDERS REQUIRED TO BRING UTILITY FEED FROM THE DUKE SUBSTATION TO THE NEW 15,000V SWITCHGEAR AND FEEDERS NEEDED TO SUPPORT THE LOOP DISTRIBUTION BETWEEN THE SWITCHGEAR AND THE SECTIONALIZING SWITCHES.

TASK 6: COORDINATE SUBSTATION CAPACITY & VOLTAGE UPGRADE, AND TEMPORARY PORTABLE 4160V SUBSTATION WITH DUKE ENERGY. ENERGIZE 12,470V SYSTEM FROM SUBSTATION AND TRANSFER 4,160V SYSTEM TO RUN FROM THE PORTABLE SUBSTATION. TEST THE NEW 15,000V SWITCHGEAR.
- TASK 7: SET TRANSFORMERS THAT REQUIRE NEW SECONDARY RUNS TO THE ASSOCIATED BUILDING'S MAIN DISCONNECT. BUILDINGS THAT REQUIRE NEW SECONDARY RUNS ARE SHOWN IN THE "BUILDING PHASING DETAILS" TABLE ON THIS SHEET. REMOVE EXISTING TRANSFORMER AFTER BUILDING IS PHASED OVER TO THE 12,470V SYSTEM.

TASK 8: SET TRANSFORMERS WHERE SECONDARY FEEDS ARE EXPECTED TO BE REUSED. BUILDINGS THAT WILL REUSE EXISTING SECONDARY FEEDS ARE SHOWN IN THE "BUILDING PHASING DETAILS" TABLE ON THIS SHEET. EXISTING TRANSFORMER WILL NEED TO BE REMOVED BEFORE THE NEW TRANSFORMER IS SET IN PLACE.
- \*COORDINATE TASK 7 & 8 ACTIVITIES SUCH THAT FACILITIES PRESENTLY SERVED BY FEEDER 1 (SEE GI-005 FOR EXISTING CONNECTIONS) ARE TRANSITIONED TO THE 12,470V SYSTEM FIRST. ONCE THIS IS COMPLETE, COMMENCE WITH TASK 9 WHILE THE REMAINDER OF TASK 7 & 8 ACTIVITIES ARE COMPLETED. INTENT IS TO MINIMIZE TIME THAT LOADS FED BY EXISTING FEEDER 2 ARE NOT BACKED UP BY GENERATOR.

TASK 9: INSTALL NEW 2000KVA, 4160-12,470V UNIT SUBSTATION. DISCONNECT EXISTING 4160V GENERATOR FROM EXISTING 4160V SWITCHGEAR AND RECONNECT TO NEW 12,470V SWITCHGEAR VIA UNIT SUBSTATION.
- TASK 10: SET NEW SWITCHES, TRANSFORMERS, AND 480V SWITCHBOARD FOR BUILDING 31 (CHILLER PLANT). INSTALL UNDERGROUND AND ABOVE GROUND CONDUITS AND CABLES REQUIRED TO SUPPORT NEW CHILLER PLANT EQUIPMENT.

TASK 11: PULL, TEST AND TERMINATE FEEDERS TO THE CHILLER PLANT MAIN SWITCH AND TRANSFORMER. ENERGIZE NEW EQUIPMENT. PHASE CHILLER PLANT LOADS OVER FROM EXISTING EQUIPMENT TO NEW EQUIPMENT.
- TASK 12: AFTER ALL BUILDINGS HAVE BEEN PHASED OVER TO THE 12,470V SYSTEM, COORDINATE REMOVAL OF THE TEMPORARY PORTABLE SUBSTATION.

TASK 13: REMOVE 4,160V EXISTING SWITCHES AND FEEDERS AFTER ALL BUILDINGS IN THE PHASING GROUPS AS DEFINED ON THE EXISTING SYSTEM SINGLE LINE DIAGRAM, GI-005, ARE PHASED OVER TO THE 12,470V SYSTEM. REMOVE THE 4,160V SWITCHGEAR ONCE ALL BUILDINGS ARE PHASED OVER TO THE 12,470V SYSTEM.

ELECTRICAL INTERRUPTIONS WILL BE REQUIRED AS PART OF THE CONSTRUCTION OF THIS PROJECT. VAMC SALISBURY RECOGNIZES THAT THESE INTERRUPTIONS WILL BE EXTENSIVE DUE TO THE NATURE OF THE PROJECT. HOWEVER, VAMC SALISBURY MUST MAINTAIN CLINICAL OPERATIONS THROUGHOUT THE COURSE OF THE PROJECT. THE CONTRACTOR SHALL DEVELOP AN OUTAGE PLAN AS PART OF THE PHASING PLAN, AND THIS OUTAGE PLAN MUST LIMIT OUTAGES AT SPECIFIC BUILDINGS AS DEFINED IN THE "BUILDING PHASING DETAILS" TABLE ON THIS SHEET. IF AN OUTAGE OF A PARTICULAR BUILDING'S ELECTRICAL SYSTEM IS REQUIRED TO LAST LONGER IN DURATION, OR OUTSIDE OF THE HOURS THAT ARE ALLOWABLE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY (AT NO ADDITIONAL CONTRACT COST) TO UTILIZE TEMPORARY GENERATORS, TO CONSTRUCT/DECONSTRUCT TEMPORARY FACILITIES, OR TO USE OTHER MEANS TO LIMIT EACH PARTICULAR BUILDING'S DOWNTIME TO THE DURATION SPECIFIED. IN ALL CASES, OUTAGES MUST BE REQUESTED IN ADVANCE, IN WRITING, AND APPROVED BEFORE WORK SHALL PROCEED. THE PROCESS FOR WHICH OUTAGES ARE REQUESTED AND APPROVED IS DETAILED IN THE PROJECT SPECIFICATIONS.

BUILDING PHASING DETAILS

BUILDING NUMBER	DESCRIPTION OF USE	OCCUPIED HOURS	ACCEPTABLE OUTAGE TIMES (EXCEPT AS OTHERWISE NEGOTIATED WITH COR)	MAX CONTINUOUS OUTAGE DURATION (HOURS)	EMERGENCY GENERATORS AVAILABLE (YES/NO)	REUSE OF EXISTING TRANSFORMER'S SECONDARY EXPECTED (YES/NO)	NOTES
1	ADMINISTRATIVE OFFICES INCLUDING DIRECTOR'S OFFICE, PATIENT CARE, CHIEF OF STAFF, HUMAN RESOURCES AND FISCAL SERVICE	MONDAY – FRIDAY 6:00 AM TO 6:00 PM	NIGHTS AND WEEKENDS	11	NO	YES	
2	MAIN HOSPITAL BUILDING TRANSFORMERS T2-1 & T2-2	24/7	WEEKENDS	0 (SEE NOTES)	YES	NO	THIS BUILDING IS FED FROM A DOUBLE-ENDED SUBSTATION SUPPLIED BY TWO TRANSFORMERS. THE BUILDING CAN BE FED FROM NORMAL POWER ON ONE SIDE OF THE DOUBLE-ENDED SUBSTATION, BUT THE GENERATORS NEED TO BE RUNNING TO SHED SOME OF THE LOAD FROM THE NORMAL POWER SYSTEM. TRANSFORMER REPLACEMENT SHOULD BE ONE AT A TIME AND DONE ON WEEKENDS TO MINIMIZE IMPACT ON PATIENT CARE.
2	MAIN HOSPITAL BUILDING – TRANSFORMER T-MRI	24/7	NIGHTS AND WEEKENDS	8	NO	NO	
2	MAIN HOSPITAL BUILDING – TRANSFORMER T-XRAY	24/7	NIGHTS AND WEEKENDS	8	NO	NO	
2	MAIN HOSPITAL BUILDING TRANSFORMER T2-3	24/7	NIGHTS AND WEEKENDS	8	NO	YES	
3	OUTPATIENT CLINICS AND ADMINISTRATIVE OFFICES	MONDAY – FRIDAY 6:00 AM TO 6:00 PM	NIGHTS AND WEEKENDS	10	YES	NO	
4	MENTAL HEALTH OUTPATIENT, INPATIENT AND ENGINEERING SERVICE SHOPS.	24/7	NIGHTS AND SATURDAYS	10	YES	YES	
5	MAIN KITCHEN, TRAVEL OFFICE, RETAIL STORE AND ADMINISTRATIVE AREAS	KITCHEN OPERATES 7 DAYS A WEEK 5:30 AM TO 7:30 PM	NIGHTS 7:30 PM TO 4:30 AM	8	YES	NO	A FEW PIECES OF CRITICAL EQUIPMENT IN THE KITCHEN ARE NOT CURRENTLY ON EMERGENCY POWER. VAMC ENGINEERING SERVICES PLANS TO CORRECT THIS BEFORE THE DISTRIBUTION PROJECT BEGINS.
6	RECREATION SERVICE, VOLUNTEER SERVICE OFFICES, FILE ROOM, RESEARCH & EDUCATION, AND CANTEEN	MONDAY – FRIDAY 6:00 AM TO 6:00 PM EXCEPT FOR RECREATION SERVICES – SEE NOTES	NIGHTS 9:00 PM TO 5:00 AM	8	NO	YES	RECREATION SERVICE HAS EVENING ACTIVITIES THAT CAN LAST TO 9:00 PM ON SOME NIGHTS AND SOME WEEKEND ACTIVITIES. WITH ADVANCED NOTICE, RECREATION CAN ADJUST THEIR SCHEDULE TO ACCOMMODATE AN OUTAGE.
7	REHABILITATION MEDICINE	MONDAY – FRIDAY 6:30 AM TO 7:30 PM	NIGHTS AND WEEKENDS	10	NO	NO	
8	MENTAL HEALTH INPATIENT	24/7	DAYLIGHT HOURS	12	YES	YES	OUTAGES CAN BE SCHEDULED AT ANY TIME, BUT DURING DAYLIGHT HOURS IS PREFERRED. IN THE EVENT OF A GENERATOR FAILURE DURING THE OUTAGE, DAYLIGHT WOULD BE AVAILABLE TO ADDRESS THE NEEDS OF THE PATIENTS.
11	DOMICILIARY	24/7	SEE GENERAL NOTES	4	YES	NO	THIS BUILDING MAY BE UNDER CONSTRUCTION AT THE TIME OF THE DISTRIBUTION PROJECT, BUT WILL HAVE SOME ADMINISTRATION AREAS THAT WILL BE OCCUPIED. OUTAGES SHOULD BE SCHEDULED AT NIGHT OR ON A WEEKEND TO MINIMIZE THE IMPACT TO ADMINISTRATIVE AREAS THAT WOULD STILL BE OCCUPIED.
11A/B/C	MENTAL HEALTH AND ADMINISTRATIVE OFFICES	MONDAY – FRIDAY 6:00 AM TO 6:00 PM	NIGHTS AND WEEKENDS	11	NO	NO	
12, 14E, 14W	VA POLICE, TRANSITIONAL REHABILITATION	24/7	DAYLIGHT HOURS	8	YES (BLDG 12 ONLY)	YES	THESE BUILDINGS ARE SERVED FROM A COMMON TRANSFORMER. BUILDING 14E HOUSES PATIENTS OVERNIGHT
13	STUDENT AND INTERN QUARTERS	24/7	8:30 AM TO 4:30 PM	8	NO	YES	
15	ADMINISTRATIVE OFFICES	MONDAY – FRIDAY 6:00 AM TO 6:00 PM	NIGHTS AND WEEKENDS	11	NO	NO	
16	ENVIRONMENTAL MANAGEMENT SERVICE OFFICES AND LAUNDRY	MONDAY – FRIDAY 5:30 AM TO 6:00 PM	NIGHTS AND WEEKENDS	10	NO	NO	
17	WAREHOUSE AND GROUNDS SHOP	MONDAY – FRIDAY 6:00 AM TO 6:00 PM	NIGHTS AND WEEKENDS	11	YES (LIMITED)	NO	
17A	WAREHOUSE		NA	NA	NO	NA	BUILDING IS SUB-FED FROM BUILDING 18
17B/C	WAREHOUSE		NA	NA	NO	NA	BUILDINGS ARE SUB-FED FROM BUILDING 16
18	BOILER PLANT	24/7	ANYTIME	12	YES	NO	
19	CHAPEL		NA	NA	NO	NA	BUILDING IS SUB-FED FROM BUILDING 4
21	SPECIALTY CLINICS, SLEEP LAB, ENDOSCOPY, AND ADMINISTRATIVE AREAS	MONDAY – FRIDAY 6:00 AM TO 6:00 PM EXCEPT FOR THE SLEEP LAB WHICH OPERATES WEEK NIGHTS	SATURDAY OR SUNDAY	12	YES	YES	
21A/B	ENGINEERING SERVICE OFFICES AND FEE BASIS OFFICES	MONDAY – FRIDAY 6:00 AM TO 6:00 PM	NIGHTS AND WEEKENDS	11	NO	NO	
31	CHILLER PLANT	24/7	DEPENDENT ON TIME OF THE YEAR – SEE NOTES	SEE NOTES	NO	NO	AVAILABILITY OF SCHEDULED OUTAGES DEPENDENT ON OUTSIDE TEMPERATURE AND THE TIME OF YEAR. WINTER OUTAGES MAY BE SUSTAINED FOR A LIMITED AMOUNT OF TIME. SUMMER OUTAGES WILL LIKELY REQUIRE TEMPORARY POWER PROVISIONS TO KEEP PLANT RUNNING AT MINIMUM REQUIREMENTS.
42	LONG TERM CARE	24/7	NIGHTS AND WEEKENDS	4	YES (LIMITED)	NO	EMERGENCY GENERATOR IS SHARED BETWEEN BUILDING 42 AND 43, AND ONLY PROVIDES POWER TO LIFE SAFETY LOADS.
43	HOSPICE	24/7	NIGHTS AND WEEKENDS	4	YES (LIMITED)	YES	EMERGENCY GENERATOR IS SHARED BETWEEN BUILDING 42 AND 43, AND ONLY PROVIDES POWER TO LIFE SAFETY LOADS.
CL	CLINICAL LAB TRANSFORMER T-1NH	24/7	DEPENDENT ON CONSTRUCTION SCHEDULE. COORDINATE WITH THE COR	DEPENDENT ON CONSTRUCTION SCHEDULE. COORDINATE WITH THE COR	YES	YES	THIS BUILDING MAY BE UNDER CONSTRUCTION AT THE TIME OF THIS PROJECT'S INSTALLATION. OUTAGES SHALL BE SCHEDULED TO MINIMIZE IMPACT ON CONSTRUCTION RELATED ACTIVITIES AND SAFETY OF THE PROJECT SITE.
PD	PARKING DECK	24/7	DEPENDENT ON CONSTRUCTION SCHEDULE. COORDINATE WITH THE COR	DEPENDENT ON CONSTRUCTION SCHEDULE. COORDINATE WITH THE COR	NO	YES	THIS BUILDING MAY BE UNDER CONSTRUCTION AT THE TIME OF THIS PROJECT'S INSTALLATION. OUTAGES SHALL BE SCHEDULED TO MINIMIZE IMPACT ON CONSTRUCTION RELATED ACTIVITIES AND SAFETY OF THE PROJECT SITE.

2	REVISED FOR ADDENDUM	4/8/2015
1	ISSUED FOR CONSTRUCTION DOCUMENTS	2/4/2015
0	100% DESIGN SUBMITTAL	7/18/2014
	Revisions	Date

ISSUED FOR CONSTRUCTION



Approved: Energy Engineer	Approved: Safety Manager	Approved: Service Chief	Drawing Title <b>PHASING PLAN</b>	Project Title <b>CORRECT HIGH-VOLTAGE ELECTRICAL DEFICIENCIES</b>	Date <b>2/4/2015</b>	Veterans Affairs
 <b>Odell International</b> 13620 Reese Blvd., Suite 100 Huntersville, North Carolina 28078 704.401.2040 www.odell-intl.com	Approved: Infection Control Officer	Approved: Chief of Staff			Project No. <b>659-13-102</b>	
 <b>Wiley Wilson</b> 127 Nationwide Drive Lynchburg, Virginia 24502-4272 434.947.1901 www.wileywilson.com	Approved: GEMS Coordinator	Approved: Associate Director	Approved: Chief of Engineering Svc.	Building Number <b>VAMC SALISBURY, NC</b>	Checked SAB Drawn MRK	
			Approved: Medical Center Director	Location <b>VAMC SALISBURY, NC</b>	Revision 2	
					DRAWING NO. <b>GI-003</b> Dwg.3 OF 58	